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(54) Method and system for speech data compression and regeneration

(57) A method and system for creating a compressed data representation of a human speech utterance which may be utilized to accurately regenerate the human speech utterance. First, the location and occurrence of each period of silence, voiced sound and unvoiced sound within the speech utterance is detected. Next, a single representative data frame which may be repetitively utilized to approximate each voiced sound is iteratively determined, along with the duration of each voiced sound. The spectral content of each unvoiced sound, along with variations in the amplitude thereof is also determined. A compressed data presentation is then created which includes encoded representations of a duration of each period of silence, a duration and single representative data frame for each voiced sound and a spectral content and amplitude variations for each unvoiced sound. The compressed data representation may then be utilized to regenerate the speech utterance without substantial loss in intelligibility.

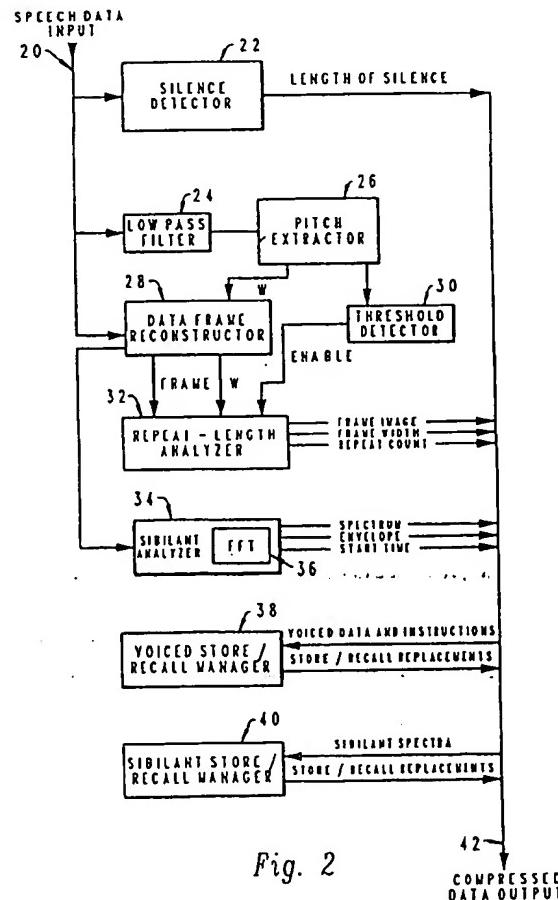


Fig. 2



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## EUROPEAN SEARCH REPORT

Application Number  
EP 93 48 0214

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.5)						
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim							
Y	WO-A-88 00754 (NCR CO) 28 January 1988 * abstract; claims 1,3,6-8; figures 3,9,10,13 *	1-14	G10L3/00 G10L3/02						
Y	WO-A-91 14162 (ICHIKAWA KOZO) 19 September 1991 * abstract; claim 1 *	1-14							
A	US-A-5 140 639 (SPRAGUE RICHARD P ET AL) 18 August 1992 * column 1, line 31 - line 40 *	1							
A	EP-A-0 260 053 (AMERICAN TELEPHONE & TELEGRAPH) 16 March 1988 * abstract *	1							
			TECHNICAL FIELDS SEARCHED (Int.Cl.5)						
			G10L						
<p>The present search report has been drawn up for all claims</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td> <td style="width: 33%;">Date of completion of the search</td> <td style="width: 34%;">Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>26 January 1996</td> <td>Van Doremalen, J</td> </tr> </table>				Place of search	Date of completion of the search	Examiner	THE HAGUE	26 January 1996	Van Doremalen, J
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THE HAGUE	26 January 1996	Van Doremalen, J							
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone      Y : particularly relevant if combined with another document of the same category      A : technological background      O : non-written disclosure      P : intermediate document</p> <p>T : theory or principle underlying the invention      E : earlier patent document, but published on, or after the filing date      D : document cited in the application      L : document cited for other reasons      &amp; : member of the same patent family, corresponding document</p>									